

Water Resources Department

Steven D. Drew, Director

City Council Retreat

Wednesday, February 8-9, 2018



Departmental Overview

Agenda

1. Preamble
2. Rates and Fees
3. Budget/Cost Drivers
4. Operational Drivers
5. Reliability and Resiliency



N.L. Mitchell Water Treatment Plant

Preamble

Number of employees: 352

Departmental Budget FY 17-18

- Water & Sewer: \$133,262,486
- Stormwater: \$13,444,871

Capital Improvement Projects

- 2017- \$49.6 M
- 5-year projection: \$333 M

Water & Sewer System

2 Water Treatment Plants

- Mitchell (24 MGD)
- Townsend (30 MGD)

1 Wastewater Treatment Plant

- TZ Osborne (56 MGD)

Interconnections

| | |
|------------|-------------|
| PTRWA | 6.7-7.8 MGD |
| Reidsville | 1-5 MGD |
| Burlington | 1.5-5 MGD |
| High Point | 1 MGD* |
| WSFCUC | 1-3 MGD* |

* Emergency basis only

Divisions

Business

Customer Service

Engineering

Operations

Stormwater

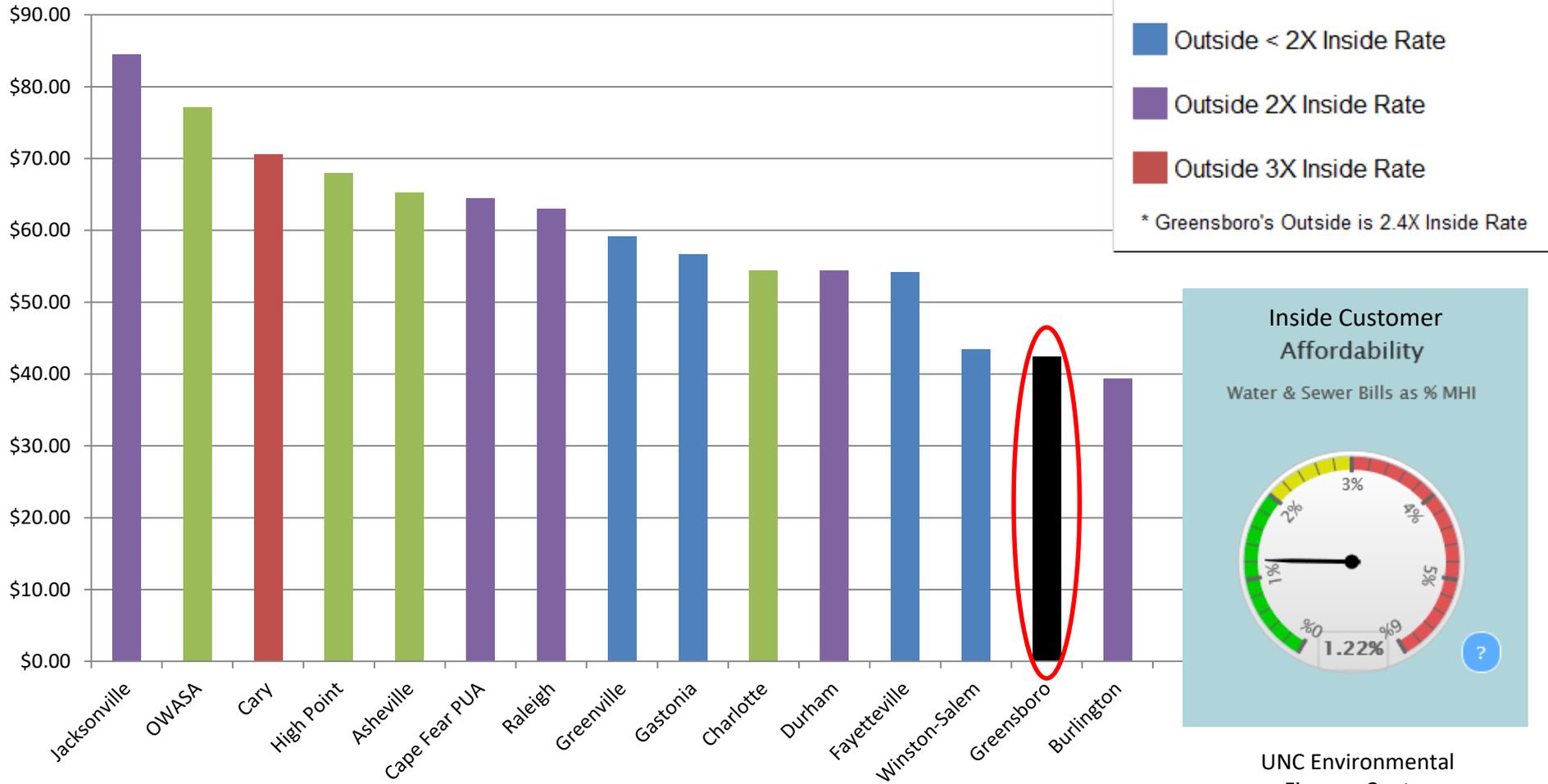
Water Reclamation

Water Supply



Rate Comparison to Other NC Cities

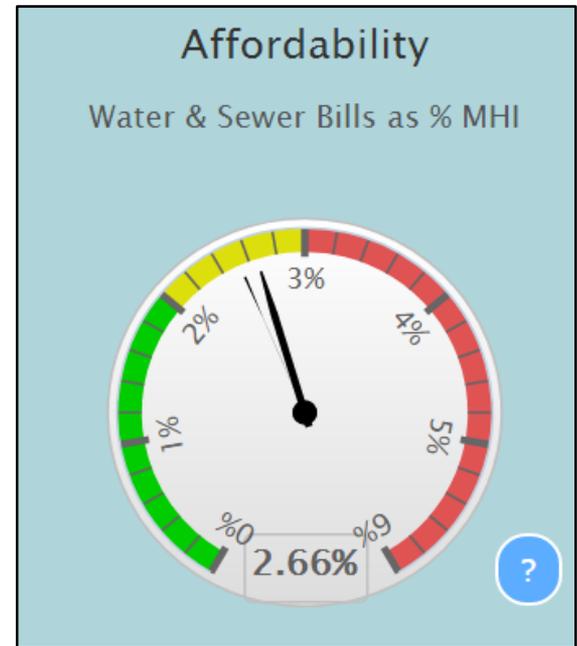
Rates as of January 1, 2017 (Avg. Residential Customer – 6 units)



OWASA provides water to Carrboro-Chapel Hill Community; Cape Fear is in Wilmington.

Affordability

1. Only 6% of all Customers pay Outside Rates
2. 94% Multifamily/Residential
3. Represent 11% of all Pay Arrangements, 8.3% NSF Cks
4. Exploring Public/Private Consumer Assistance Program (CAP) Options



Outside Rate Impact

Rate Drivers

1. Infrastructure Rehab and Replacement
2. Regulatory
3. System Demands



T.Z. Osborne Water Reclamation Facility

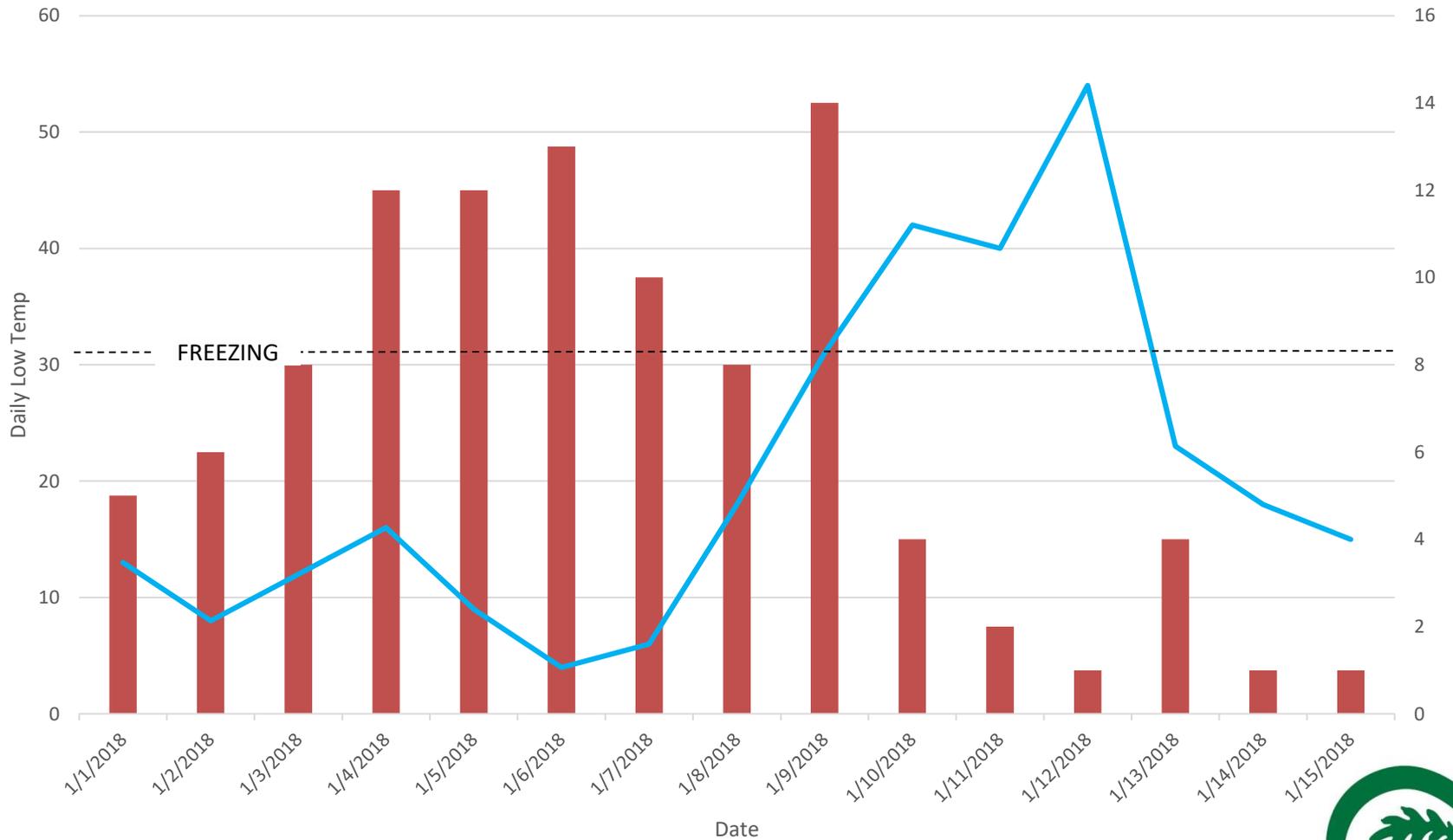
Rate Making Authorization and Recent Legislation

- City Council sets the rates for the Utility
- Capacity Use Fees/System Development Fees – In July 2017, NC General Assembly passed Session Law 2017-138 (HB 436) requiring utilities to conform to a uniform methodology
- Rate Study – SL 2017-57 included a Water and Sewer Rate Study
 - Proper Use of Utility Funds
 - Regionalization Efficiencies
 - Possibility of new legislation



Budget and Cost Drivers

of Water Main Breaks vs. Low Temperature



146 Breaks since 12/3/17

of Breaks Low Temp



Regulatory

Safe Drinking Water Act (1974)

- Principal [federal law](#) in the [United States](#) intended to ensure safe [drinking water](#) for the public
- Sets standards (primary and secondary) for drinking water quality
- Does not apply to bottled water (FDA)

Clean Water Act (1972 Amendments)

- Principal [federal law](#) for regulating discharges of [pollutants](#) into the waters of the United States and regulating [quality standards](#) for [surface waters](#)
- EPA's National Pollution Discharge Elimination System (NPDES) permit program controls discharges from point sources like wastewater treatment plants

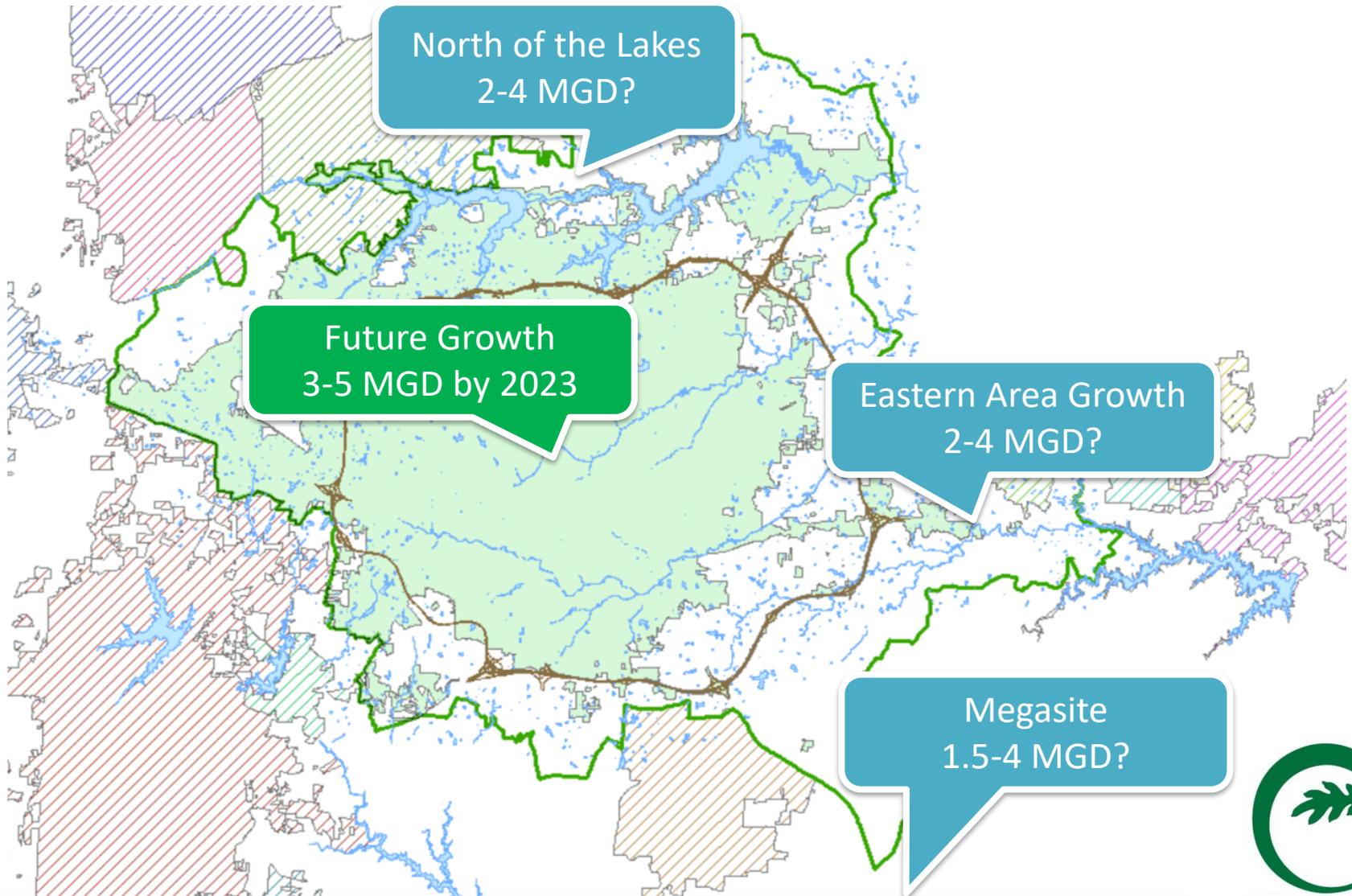


Regulatory

- Emerging Contaminant Testing for Drinking Water
 - At trace levels, often below “detect” limits
 - Risk to human health and the environment not yet known
 - Examples: Perfluorinated Compounds, Pharmaceuticals, Personal Care Products
- Unregulated Contaminant Monitoring Rule (UCMR 4)
 - Issued every 5 years
 - List of no more than 30 unregulated contaminants to be monitored by public water supply systems
 - Provides scientifically valid occurrence data used to assess exposure and develop regulatory decisions



Future System Demands



Future System Demands

- Eastern Area Sewer Improvements underway are estimated to cost nearly \$40M
- The first of two PTRWA expansions is expected to cost at least \$15M
- Economic Development Projects compete for precious capacity
- GSO's 50 year supply can be used up in 20 years without thoughtful decision making. Demand projections, E.D. project type and timing is crucial for long term sustainability

Water & Sewer Readiness

- Engineering Complete
- Golden Leaf \$7.0M
- Dept. of Commerce Grant \$1.44M
- Continue Easement Acquisition, to be Completed this Year



Utility Disaster Preparedness

Reliability & Resiliency

- System Wide Service Interruption
- Measured in Weeks or Months

What are the Threats?

- Extreme Weather Events
- Cyber Attack to Power Grid
- Electromagnetic Pulse (EMP)

Operational Vulnerabilities

- Fuel Supply for Long Term Generator Operations
- Treatment Chemical Supply Chain Interruptions



Questions?

